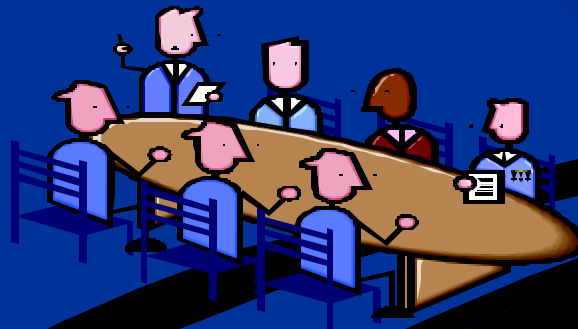


TRIENNIAL REVIEW

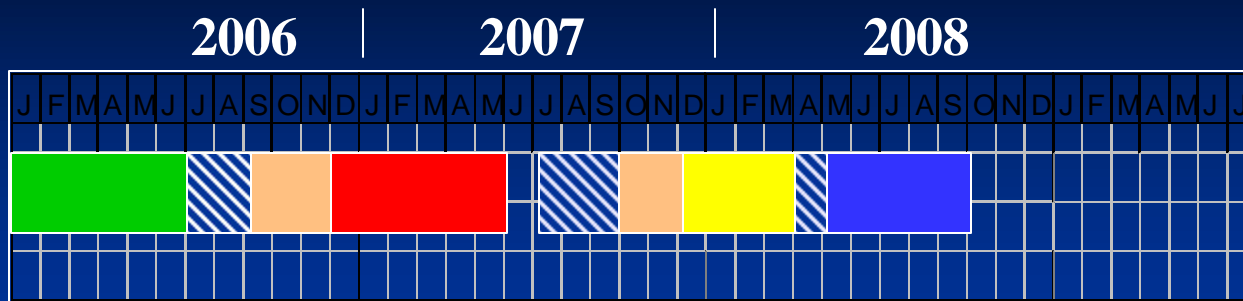
Ad Hoc Advisory Committee
WATER QUALITY STANDARDS
December 1, 2006



Ad Hoc Committee

- Chamber of Commerce
- Chesapeake Bay Foundation
- Dominion Resources
- EPA
- Farm Bureau
- Friends of the Rivers VA
- James River Association
- Nature Conservancy
- Navy
- Richmond City
- Save Our Streams
- USFWS
- VAMWA
- VA Coal Assoc.
- VA Dept Conservation Rec.
- VA Dept Game Inland Fish.
- VA Dept Health
- VA Manufacture Assoc.
- VIMS

TRIENNIAL REVIEW TIMELINE



•Pre-NOIRA



•DPB and Executive Reviews



•NOIRA or NOPC Comment Periods



•Public Comment Review, Ad Hoc, Proposal Development, Board Approval



•Public Comment Review, Board Adoption in March 08

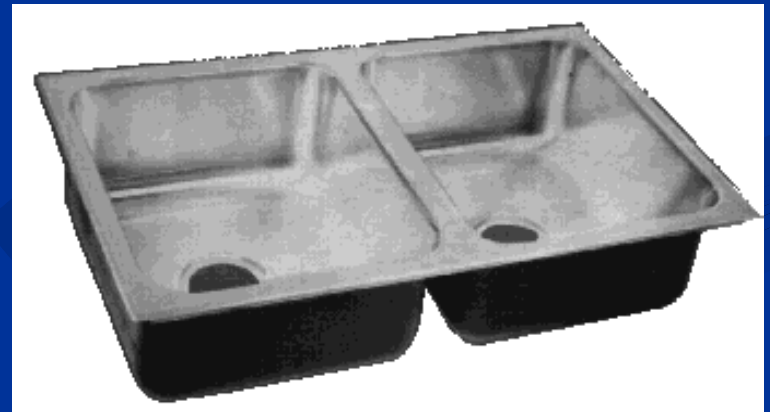


•Final Publication, AGO Certification, EPA Approval, Effective Date

Issues Being Considered Under These Topics

- Use Designation
- Mixing Zone
- Antidegradation
- Bacteria
- Criteria
 - Toxics
 - Assessment Clarifications (10% Rule)
- Chesapeake Bay
- Special Standards
- Swamp Waters
- Trout Waters
- Public Water Supply

“Everything but the....”



Comments Received About Topics General

- Focus on inaccuracies or inflexible aspects
- Use best, current scientific information and make sure EPA guidance appropriate for VA
- Improve in light of new EPA assessment guidance 303(d)
- Triennial Review takes too long

Comments Received

Use Designations

- Concern about the lowering of uses, move cautiously
- Use designations made in the 1970's without scientific foundation and in need of revision or refinement along with related criteria
- Define the level of evidence needed in reasonable grounds petitions to justify the need for a UAA

Comments Received

Mixing Zones

Antidegradation

- Eliminate allocated impact zones to prevent lethality to resident aquatic life
- Prohibit new or expanded mixing zones for persistent bioaccumulative toxics (PBTs)
- Require a parameter by parameter approach for antidegradation protection.
- Strengthen implementation of Tier 2 as some degradation has occurred in Tier 2 waters without the required analysis of social or economic necessity.
- Include a Tier 2.5 designation between tier 2 and 3.
- Encourage placement of high quality wetlands as tier 3

Comments Received

Criteria

- TDS not appropriate – focus on individual constituents
- TDS concentration of 334 mg/L overly protective and much lower than other states and what technical literature or recent studies shows as toxic levels
- TDS naturally variable in concentration and composition dependent on soils, rocks, hydrology
- Support for TDS criterion, extend to turbidity
- Update all WQC that lead to pollutant reductions particularly for PCBs, mercury and emerging pollutants.

Comments Received

Chesapeake Bay

- Clarify in the regulation that either SAV or water clarity may be used to determine use attainment (don't need both to do an assessment).
- Given the recent financial, technical burden placed upon WWTF due to the Bay commitments for nutrient reductions focus on streamlining or minimizing additional regulatory burdens where consistent with good science

No Specific Comments Received

- Bacteria
- Special Standards
- Swamp Waters
- Trout Waters
- Public Water Supply



Mixing Zones

9 VAC 25-260-20.B

- Mixing zones currently focused on VPDES, toxics, temperature. Does it need clarification e.g. VWP, nutrients, human health?



Use Designations

9 VAC 25-260-10

- New legislation regarding submittal of 'reasonable grounds.' Does this need clarification?

Antidegradation

9 VAC 25-260-30

- Incorporate an additional 'tier' designation (i.e. Tier 2.5) to maintain higher quality streams and/or clarify existing tier designations (subsections A.1, A.2 and A.3).





Bacteria

9 VAC 25-260-160 and 170



■ Bacteria; shellfish waters

- Fecal Coliform (14/100)

■ Bacteria; other waters

- A. In surface waters, except shellfish waters the following criteria shall apply to protect primary contact recreational uses:
1. Fecal coliform bacteria shall not exceed a geometric mean of 200 fecal coliform bacteria This criterion shall not apply... after the bacterial indicators ... have a minimum of 12 data points or after June 30, 2008, whichever comes first.



Bacteria

9 VAC 25-260-160 and 170



Bacteria; other waters

A.2.	Geometric Mean ¹	Single Sample Maximum ²
<i>E. Coli</i> (fresh)	126	235
Enterococci (salt)	35	104

¹ Two or more samples calendar month.

² No single sample maximum shall exceed a 75% upper one-sided confidence limit based on a site-specific log standard deviation. If site data are insufficient to establish a site-specific log standard deviation, then 0.4 shall be used as the log standard deviation in freshwater and 0.7 shall be as the log standard deviation in saltwater and transition zone. Values shown are based on a log standard deviation of 0.4 in freshwater and 0.7 in saltwater.

B. Notwithstanding the above, all sewage discharges shall be disinfected to achieve the applicable bacteria concentrations in subsection A 2 of this section prior to discharge.



Bacteria

9 VAC 25-260-160 and 170



- Clarify how the bacteria maximum (or percentile) and geometric mean are to be interpreted (e.g. if both the bacteria max and mean apply)
- Clarify how the max and mean are to be used for each program (monitoring, assessments, TMDL, beach closure, permits)
- Allow a fixed rate percent (e.g. 10%) to define allowable excursions for SSM
- Discuss the averaging period (e.g. seasonal or annual).
- Discuss illness rates (risk levels) for recreational criteria.
- Address wet weather or CSO impacted waters.



Bacteria

9VAC 25-260-160 and 170



- Clarify recreation bacteria criteria (other waters) also apply in shellfish waters.
- Remove fecal coliform criterion for recreational use (keep *E. coli* and enterococci).

Criteria

9 VAC 25-260-140

- Address a fixed rate percent method (i.e. 10%) to define allowable excursions of criteria (D.O., temp).
- Define number of significant figures for criteria.
- Address maximum temperature criteria and recreational uses.
- Include enhanced biological narrative criteria



Criteria

9 VAC 25-260-140

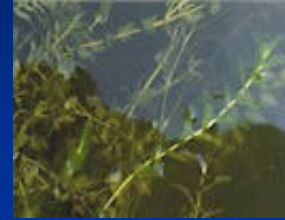
- Update numerical criteria for aquatic life and human health protection (e.g. chlorine, copper, diazinon, flouride, lead, nonylphenol, radionuclides, TBT, toxaphene, fish tissue (e.g. mercury), 19 other human health criteria or just include methodology) based on new scientific information.
- Simplify duration and return frequency of toxics criteria.
- Add total dissolved solids numerical criteria for aquatic life protection.



Chesapeake Bay

9 VAC 25-260-185

- Identify whether shallow water use designations apply in SAV 'no grow zones' or segments with no historical SAV documented.
- Update Bay segmentation scheme to separate smaller tidal tributaries or embayments from larger Bay segments.
- Update CFD curves in subsection D.
- Clarify the period over which the DQ assessment should be done (annual, seasonal or summer vs. rest of year).
- Incorporate EPA new criteria addendum.



Special Standards

9 VAC 25-260-310

- Include site specific criteria for manganese in the Roanoke River near Clover, VA due to high natural background.
- Include Water Effect Ratio for Blackwater River (Franklin).
- Clarify that Chickahominy special standard 'm' does not apply to 'discharges consisting solely of storm water.' Update TP effluent limit for Tyson. Clarify duration of discharge limits for settleable solids and ammonia nitrogen (monthly averages).
- Delete obsolete special standards (e.g. chloride sp. std. 's').
- Add special standard for pH in epilimnion of lakes where higher than 9.0.
- Verify limestone streams with pH criteria to 6.5 – 9.5 in naturally affected areas.

Swamps

9 VAC 25-260-50, 390 – 540

- Add new Class VII Swamp Waters
- Adjust dissolved oxygen criteria and pH criteria for Class VII Swamp Waters.



Trout Waters

9 VAC 25-260-50, 370, 390 – 540

- Add, modify or delete trout waters as appropriate.
- Adjust temperature criteria or application of temperature criteria to stockable streams in summer



Public Water Supply

9 VAC 25-260- 390 – 540

- Add, modify or delete public water supply designations per VDH



Ad Hoc Committee

- Meetings December 1, 2006, February 21, March 21, April 18, May 9, 2007 in this location

